

## **INTERNET BANKING ADOPTED BY INDIAN BANKS: CURRENT SCENARIO & STRATEGY**

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### ***ABSTRACT***

Over the last three decades or so, there has been a remarkable increase in the size, spread and activities of banks in India. The number of bank branches rose considerably during this period. The business profile of banks has transformed dramatically to include non-traditional activities like merchant banking, mutual funds, new financial services and products, personal investment counseling, etc. The entry of new banks intensified the competition to attract and retain customers. Computerization was inevitable both in the interest of customer service and operational efficiency. The Rangarajan Committee report in the early 1980s perhaps served as the first blueprint for computerization and mechanization of banks in the country. Since then banks have traveled a long way through various phases viz. from Automatic Ledger Posting Machines (ALPMs) to Total Branch Automation to ATMs, mobile ATMs, internet banking, etc. Today, banks are vying with each other to offer their customers not just Anytime Banking but Anywhere Anytime Banking. All these advancements primarily aimed at providing better and more innovative services to customers.

### **INTRODUCTION**

With a view to bringing about improvements in the systemic efficiency of the banking sector, the Reserve Bank of India has taken quite a few initiatives in the recent years. The introduction of MICR technology for cheque processing introduced initially in the metropolitan cities in the late 1980s was one such initiative. The establishment of the INFINET (Indian Financial Network) was another major initiative of RBI. This was prompted by the perceived need for a robust means of communication not only between branches of banks or across different banks but also with the constituents of banks. The INFINET, which has been functional for over 3 years now, is an efficient and cost-effective communication backbone for the Banking and Financial Sector. It offers an exclusive, safe and secure communication network for the use of the banking sector.

The network is managed by the Institute for Development Research in Banking Technology (IDRBT) at Hyderabad.

Today, banking requires decision making on the basis of empirical data and it is imperative that information managers use the best available means for information transfer on real time basis. The INFINET provides the required infrastructure and it remains to be seen as to how best the banks exploit its potential.

One of the areas which could derive considerable benefit from the advances in computing and communication technology and in which the Reserve Bank is playing a key role relates to payment and settlement systems. As is widely known, payments in India are largely cash based although there are non-cash based payments as well. The usage of electronic means

of funds movement and settlement is slowly but surely acquiring importance. The Electronic Clearing Services (ECS) – both Debit Clearing and Credit Clearing has helped eliminate avoidable paper instruments in respect of large volume but relatively small value payments of repetitive nature. The Electronic Fund Transfer (EFT) system has facilitated remittance of funds from one bank branch to an account in another bank branch at a different centre quickly and securely

To have secured and safe transfers the Structured Financial Messaging Solution (SFMS) – an application which would be riding on the INFINET communication backbone has been introduced by RBI. SFMS would have adequate security measures incorporated including that of PKI - Public Key Infrastructure, with encryption software comparable to some of the best implementations in the world. The message formats used in SFMS are very similar to those used by SWIFT, resulting in ease of usage by banking community in the country. This secure messaging backbone can be used for a number of intra-bank applications also. The Centralised Funds Management System (CFMS), the Centralised Public Debt Office (PDO) project comprising the Negotiated Dealing System (NDS) and the Securities Settlement System (SSS), the Real Time Gross Settlement System (RTGS) are a few other products which are slated to assume a significant role in the near future. The initiatives mentioned above have had a cascading effect on the functioning of banks.

It is now essential that all the banks are equipped with synchronous computer systems. The proliferation of a variety of platforms – relating to hardware, operating systems, software and application software has resulted in

many banks having different platforms; it has thus become essential to have interfaces, which would ensure seamless integration across different systems. While the central inter-bank applications developed and provided by the Reserve Bank would have well tested Application Programme Interfaces (APIs) which would achieve this objective, banks would have to get their internal software ready for this purpose.

Various other forms of electronic based payments have also been slowly making their viz., Credit cards, ATMs, Stored Value cards, Shared Payment Network Services (SPNS), etc. and the role of technology in respect of these is abundantly clear .

### **The Indian Banking Sector: Changing Scenario**

The changes staring in the face of bankers relate to the fundamental way of banking – which is undergoing a rapid transformation in the world of today in response to the forces of competition, productivity and efficiency of operations, reduced operating margins, better asset / liability management, risk management, anytime and anywhere banking. The major challenge faced by banks is to protect the falling margins due to the impact of competition. Falling profit margins call for increasing volumes so as to result in better operating results for banks. This will be best achieved by exploiting the advantages of technology, which facilitates handling increased volumes at higher levels of efficiency and enhancing customer relationships.

It is in this context that there is an imperative need for not merely upgradation of technology but also for its systematic integration with the general way of functioning of banks- to give them an edge in respect of services provided to

their constituents, better housekeeping, optimizing the use of funds and building up of MIS for decision making, better management of assets & liabilities and the risks assumed which in turn have a direct impact on the balance sheets of banks as a whole.

Technology has demonstrated potential to change methods of marketing, advertising, designing, pricing and distributing financial products and services and cost savings in the form of an electronic, self-service product delivery channel. These challenges call for a new, more dynamic, aggressive and challenging work culture to meet the demands of customer relationships, product differentiation, brand values, reputation, corporate governance and regulatory prescriptions. Technology holds the key to the future success of Indian Banks.

Technology, it has been established will play a key role in creating and sustaining a core competitive advantage in the times to come. Thus there is a need to identify some fundamental changes that may be required to cope with these rapid changes in the business scenario and the growing importance of technology in banking .

The paper proposes several aspects – and the fourteen which can be considered ‘ vital and crucial’ have been listed below:

- Initiating fundamental re-organisation plans concurrently
- Improving competitiveness through implementation of total quality management processes
- Incorporating information systems as an integral part of business and production strategies

- Responding to new or increased global competition
- Rightsizing the workforce to match it with the altered work loads
- Initiating cost-containment mechanisms to ensure effective ROI
- Attuning the corporate culture to be more employee sensitive keeping in view the changing profile and needs of today’s IT savvy, educated employees
- Ensuring customer focus with emphasis on customer-service attitude and altered customer centric rather than process centric behaviour throughout the organization
- Establishing new products and markets
- Dealing with the turmoil associated with mergers, acquisitions and leveraged buyouts
- Redefining organizational culture to be more supportive of corporate business objectives
- Complying with new Government regulations
- Establishing employee-involvement programmes to generate a sense of empowerment and commitment
- Incorporating new production / manufacturing procedures & service machinery.

Indian banks have always proved beyond doubt their adaptability to change and it is expected

that they would be able to mould themselves into agile and pliant organizations by adopting fine-tuned customer relationship strategies, revitalized recruitment, selection and placement policies, operations based on asset-liability and risk management systems, the required technological capabilities and developing the human resources to meet the challenges of the paradigm shift.

### **The Changed Marketing Scenario: Advent of ‘integrated Banking’**

Indian Bank endeavor continuously to serve all financial needs of the Indian customer. Considering the multiplicity and complexity of investment options now available in the market, collecting and analyzing such information may involve considerable time and efforts on one’s part. In an attempt to assist a customer in taking right decisions in the financial matters, banks are using technology solutions to offer complete & integrated wealth management services rather than discrete and unconnected banking products



### **E BANKING TOOLS: AT A GLANCE**

#### **World Wide Web (WWW)**

Internet encompasses any electronic communication between computers using TCP/IP protocol, such as e-mail, file transfers etc. WWW is a segment of Internet, which uses

Hyper Text Markup Language (HTML) to link together files containing text, rich text, sound, graphics, video etc. and offers a very convenient means of navigating through the net. It uses hypertext transfer protocol (HTTP) for communication between computers. Web documents, which are referred to as pages, can contain links to other related documents and so

on, in a tree like structure. The person browsing one document can access any other linked page.

The web is being used in multiple ways to integrate core banking function internally as well as to offer customized e – banking solutions to customers. Further, the use of world wide web is also increasing in the promotional mix being used by banks.

### **Wireless Application Protocol (WAP)**

WAP is the latest industry standard which provides wireless access to Internet through hand held devices like a cellular telephone. This is an open standard promoted by WAP forum and has been adopted by world's all major handset manufacturers.

### **E-Commerce**

Even though started as network primarily for use by researchers in defence and scientific community, with the introduction of WWW in early 1990s, use of Internet for commerce has grown tremendously. E-commerce involves individuals and business organizations exchanging business information and instructions over electronic media using computers, telephones and other telecommunication equipments. Such form of doing business has been in existence ever since electronic mode of data / information exchange was developed, but its scope was limited only as a medium of exchange of information between entities with a pre-established contractual relationship.

The innovation ranged from the electronic version of a traditional way of doing business (e-shop) to more innovative ways by offering functions that did not exist before. The second dimension, i.e, extent of integration ranges from

a single function business model (like e-shop) to fully integrated functionality (value chain integrator). In the top end of the graph are models, which cannot be implemented in a traditional way and are critically dependent upon information technology and creating value from information flow. Business models, in between these two limits are a combination of both dimensions in different degrees and have some degree of analogy in traditional firms. There are two types of e-commerce ventures in operation: the old brick and mortar companies, who have adopted electronic medium, particularly Internet, to enhance their existing products and services, and / or to offer new products and services and the pure e-ventures who have no visible physical presence. This difference has wider ramifications than mere visibility when it comes to issues like customer's trust, brand equity, ability to service the customers, adopting new business culture and cost. These aspects of e-commerce will be touched upon in the following discussions. Another way of classifying the e-commerce is by the targeted counterpart of a business, viz, whether the counterpart is a final consumer or another business in the distribution chain. Accordingly, the two broad categories are: Business-to-Consumer (B2C) and Business-to-Business (B2B).

### **Technology in Banking: Opportunities**

Internet provides an ever-growing market both in terms of number of potential customers and geographical reach. Technological development has made access to Internet both cheaper and faster. More and more people across the globe are accessing the net either through PCs or other devices. The purchasing power and need for quality service of this segment of consumers are considerable. Anybody accessing Internet is a potential customer irrespective of his or her

location. Thus, any business targeting final consumers cannot ignore the business potential of Internet. Internet offers a unique opportunity to register business presence in a global market. Its effectiveness in disseminating information about one's business at a relatively cost effective manner is tremendous. Time sensitive information can be updated faster than any other media. The ability to sell one's product at anytime and anywhere to the satisfaction of customers is essential for e-business to succeed. Internet offers such opportunity, since the business presence is not restricted by time zone and geographical limitations. Replying to customers' queries through e-mail, setting up (Frequently Asked Questions) FAQ pages for anticipated queries, offering interactive help line, accepting customers' complaints online 24 hours a day and attending to the same, etc. are some of the features of e-business which enhance the quality of service to the customers. It is of crucial importance for an e-venture to realize that just as it is easier to approach a customer through Internet, it is equally easy to lose him. The customer has the same facility to move over to another site. Cost is an important issue in an e-venture. It is generally accepted that the cost of overhead, servicing and distribution, etc. through Internet is less compared to the traditional way of doing business. Although the magnitude of difference varies depending on the type of business and the estimates made, but there is unanimity that Internet provides a substantial cost advantage and this, in fact, is one of the major driving forces for more number of traditional business adopting to e-commerce and pure e-commerce firms to sprout. Cost of communication through WWW is the least compared to any other medium. Many a time one's presence in the web may bring in international enquiries, which the business might

not have targeted. The business should have proper plans to address such opportunities.

### **Technology in Banking: Threats**

There are a number of obstacles, which an e-commerce venture, regardless of the sector, needs to overcome. Trust of customers in a web venture is an important concern. Many customers hesitate to deal with a web venture as they are not sure of the type of products and services they will receive. This is particularly true in a B2C venture like e-shop, e-mall or e-auction site. Traditional business with well established brands and goodwill and having a physical presence face less resistance from customers in this regard than a pure e-venture.

In case of banking the concerns have been over the security of data and information transfer and privacy. These concerns are common to any network including closed user group networks. But over the Internet, the dimensions of risk are larger while the control measures are relatively fewer. It will be sufficient to say here that the key components of such concern are,

- (i) Authentication, viz., assurance of identity of the person in a deal,
- (ii) Authorization, viz., a party doing a transaction is authorized to do so,
- (iii) The privacy or confidentiality of data, information relating to any deal,
- (iv) Data integrity, viz., assurance that the data has not been altered and
- (v) Non repudiation, viz., a party to the deal can not deny that it originated the communication or data.

## **E- BANKING PRODUCTS: INTERNATIONAL SCENARIO**

Internet banking has presented regulators and supervisors worldwide with new challenges. The Internet, by its very nature, reaches across borders and is, for this reason, engaging the attention of regulatory and supervisory authorities all over the world. The experience of various countries, as far as Internet banking is concerned, in U.S.A is outlined below.

Several new business process and technological advances such as Electronic Bill Presentment and Payment (EBPP), handheld access devices such as Personal Digital Assistants (PDAs), Internet Telephone and Wireless Communication channels and phones are emerging in the US market. A few banks have become Internet Service Providers (ISPs), and banks may become Internet portal sites and online service providers in the near future. Reliance on third party vendors is a common feature of electronic banking. Efforts are under way to make it easier to use debit cards, cheques and the Automated Clearing House (ACH) to make payments over the Internet. Versions of e-money, smart cards, e-cheques and other innovations are being experimented with to support retail payments over the Internet. Federal and state laws, regulations, and court decisions, and self-regulation among industries groups provide the legal and operational framework for Internet commerce and banking in the USA.

The international model laws promulgated by the United Nations Commission on International Trade Law (UNCITRAL) provide the guidance to the member nations on the necessity for revising existing legal structures to accommodate electronic transactions. Some important laws of general application to

commercial activity over the Internet within the US are the Uniform Commercial Code (UCC), the Uniform Electronic Transaction Act (UETA) (which provides that electronic documents and contracts should not be disqualified as legal documents particularly because of their electronic form), various state laws and regulations on digital signatures and national encryption standards and export regulations. Many states already have digital signature and other legislation to enable e-commerce. State laws in this area differ but the trend is towards creating legislation, which is technology neutral. The E-sign Act, a new US law that took effect on October 1, 2000, validates contracts concluded by electronic signatures and equates them to those signed with ink on paper. The concerns of the Federal Reserve are limited to ensuring that Internet banking and other electronic banking services are implemented with proper attention to security, the safety and soundness of the bank, and the protection of the

banks' customers. Currently, all banks, whether they are 'Internet only' or traditional banks must apply for a charter according to existing guidelines. The five federal agencies - Federal Deposit Insurance Corporation (FDIC), Federal Reserve System (FRS), Office of the Comptroller of Currency (OCC), Office of Thrift Supervision (OTS) and the National Credit Union Association (NCUA) supervise more than 20,000 institutions.

The Financial Services Authority (FSA) is neutral on regulations of electronic banks. The current legislation, viz. the Banking Act 1987 and the Building Societies Act, provides it with the necessary powers and the current range of supervisory tools. A new legislation, the Financial Services and Market Bill, offers a significant addition in the form of an objective

requiring the FSA to promote public understanding of the financial system. There is, therefore, no special regime for electronic banks. A draft Electronic Banking Guidance for supervisors has, however, been developed. A guide to Bank Policy has also been published by the FSA which is technology neutral, but specifically covers outsourcing and fraud

### **E- BANKING PRODUCTS: THE INDIAN SCENARIO:**

Internet banking, both as a medium of delivery of banking services and as a strategic tool for business development, has gained wide acceptance internationally and is fast catching up in India with more and more banks jumping on the technology bandwagon .

India can be said to be on the threshold of a major banking revolution with net banking having already been unveiled. A recent questionnaire to which 46 banks responded, has revealed that at present, 11 banks in India are providing Internet banking services at different levels, 22 banks propose to offer Internet banking in near future while the remaining 13 banks have no immediate plans to offer such facility. At present, the total Internet users in the country are estimated at 9 lakh.

However, this is expected to grow exponentially to 90 lakh by 2003. Only about 1% of Internet users did banking online in 1998. This increased to 16.7% in March 2000. The growth potential is, therefore, immense. Further incentives provided by banks would dissuade customers from visiting physical branches, and thus get 'hooked' to the convenience of arm-chair banking. The facility of accessing their accounts from anywhere in the world by using a home computer with Internet connection, is particularly fascinating to Non-Resident Indians

and High Networth Individuals having multiple bank accounts. Costs of banking service through the Internet form a fraction of costs through conventional methods. Rough estimates assume teller cost at Re.1 per transaction, ATM transaction cost at 45 paise, phone banking at 35 paise, debit cards at 20 paise and Internet banking at 10 paise per transaction. The cost-conscious banks in the country have therefore actively considered use of the Internet as a channel for providing services. Fully computerized banks, with better management of their customer base are in a stronger position to cross-sell their products through this channel.

### **E BANKING PRODUCTS AND SERVICES: AT A GLANCE**

Banks in India are at different stages of the web-enabled banking cycle. Initially, a bank, which is not having a web site, allows its customer to communicate with it through an e-mail address; communication is limited to a small number of branches and offices which have access to this e-mail account. As yet, many scheduled commercial banks in India are still in the first stage of Internet banking operations.

With gradual adoption of Information Technology, the bank puts up a web-site that provides general information on the banks, its location, services available e.g. loan and deposits products, application forms for downloading and e-mail option for enquiries and feedback. It is largely a marketing or advertising tool. For example, Vijaya Bank provides information on its web-site about its NRI and other services. Customers are required to fill in applications on the Net and can later receive loans or other products requested for at their local branch.

A few banks provide the customer to enquire into his demat account (securities/shares) holding details, & transaction details and status of instructions. These web sites still do not allow online transactions for their customers.

Some of the banks permit customers to interact with them and transact electronically with them. Such services include request for opening of accounts, requisition for cheque books, stop payment of cheques, viewing and printing statements of accounts, movement of funds between accounts within the same bank, querying on status of requests, instructions for opening of Letters of Credit and Bank Guarantees etc. These services are being initiated by banks like ICICI Bank Ltd., HDFC Bank Ltd. Citibank, Axis Bank Ltd., Bank of Madras Ltd., Federal Bank Ltd. etc. Recent entrants in Internet banking are Allahabad Bank (for its corporate customers through its 'Allnet' service) and Bank of Punjab Ltd. State Bank of India has announced that it will be providing such services soon.

Certain banks like ICICI Bank Ltd., have gone a step further within the transactional stage of Internet banking by allowing transfer of funds by an account holder to any other account holder of the bank. Some of the more aggressive players in this area such as ICICI Bank Ltd., HDFC Bank Ltd., Axis Bank Ltd., Citibank, Global Trust Bank Ltd. and Bank of Punjab Ltd. offer the facility of receipt, review and payment of bills on-line. These banks have tied up with a number of utility companies. The 'Infinity' service of ICICI Bank Ltd. allows online real time shopping mall payments to be made by customers.

HDFC Bank Ltd. has made e-shopping online and real time with the launch of its payment gateway. It has tied up with a number of portals

to offer business-to-consumer (B2C) ecommerce transactions. The first online real time e-commerce credit card transaction in the country was carried out on the Easy3shoppe.com shopping mall, enabled by HDFC Bank Ltd. on a VISA card.

Banks like ICICI Bank Ltd., HDFC Bank Ltd. etc. are thus looking to position themselves as one stop financial shops. These banks have tied up with computer training companies, computer manufacturers, Internet Services Providers and portals for expanding their Net banking services, and widening their customer base.

ICICI Bank Ltd. has set up a web based joint venture for on-line distribution of its retail banking products and services on the Internet, in collaboration with Satyam Info way, a private ISP through a portal named as icicisify.com. This way the customer base of www.satyamonline.com portal is also available to the bank. Setting up of Internet kiosks and permeation through the cable television route to widen customer base are other priority areas in the agendas of the more aggressive players.

Centurion Bank Ltd. has taken up equity stake in the teauction.com portal, which aims to bring together buyers, sellers, registered brokers, suppliers and associations in the tea market and substitute their physical presence at the auctions announced.

Banks providing Internet banking services have been entering into agreements with their customers setting out the terms and conditions of the services. The terms and conditions include information on the access through user-id and secret password, minimum balance and charges, authority to the bank for carrying out transactions performed through the service, liability of the user and the bank, disclosure of

personal information for statistical analysis and credit scoring also, non-transferability of the facility, notices and termination, etc.

The race for market supremacy is compelling banks in India to adopt the latest technology on the Internet in a bid to capture new markets and customers.

HDFC Bank Ltd. with its 'Freedom- the e-Age Saving Account' Service, Citibank with 'Suvidha' and ICICI Bank Ltd. with its 'Mobile Commerce' service have tied up with cellphone operators to offer Mobile Banking to their customers. It is estimated that by 2003, cellular phones will have become the premier Internet access device, outselling personal computers. Mobile banking will further minimize the need to visit a bank branch.

### **THE FUTURE OF E BANKING: INDIAN SCENARIO**

Compared to banks abroad, Indian banks offering online services still have a long way to go. For online banking to reach a critical mass, there has to be sufficient number of users and the sufficient infrastructure in place. The 'Infinity' product of ICICI Bank Ltd. gets only about 30,000 hits per month, with around 3,000 transactions taking place on the Net per month through this service. Though various security options like line encryption, branch connection encryption, firewalls, digital certificates, automatic signoffs, random pop-ups and disaster recovery sites are in place or are being looked at, there is as yet no Certification Authority in India offering Public Key Infrastructure which is absolutely necessary for online banking.

The customer can only be assured of a secured conduit for its online activities if an authority certifying digital signatures is in place.

The communication bandwidth available today in India is also not enough to meet the needs of high priority services like online banking and trading. Banks offering online facilities need to have an effective disaster recovery plan along with comprehensive risk management measures. Banks offering online facilities also need to calculate their downtime losses, because even a few minutes of downtime in a week could mean substantial losses. Some banks even today do not have uninterrupted power supply unit or systems to take care of prolonged power breakdown. Proper encryption of data and effective use of passwords are also matters that leave a lot to be desired. Systems and processes have to be put in place to ensure that errors do not take place.

The proposed setting up of a Credit Information Bureau for collecting and sharing credit information on borrowers of lending institutions online would give a fillip to electronic banking. The deadline set by the Chief Vigilance Commissioner for computerization of not less than 70 percent of the bank's business by end of January 2001 has also given a greater thrust to development of banking technology. The recommendations of the Vasudevan Committee on Technological Up gradation of Banks in India have also been circulated to banks for implementation. In this background, banks are moving in for technological upgradation on a large scale. Internet banking is expected to get a boost from such developments. Reserve Bank of India has taken the initiative for facilitating real time funds transfer through the Real Time Gross Settlement (RTGS) System. Under the RTGS system, transmission, processing and settlements of the instructions will be done on a continuous basis. Gross settlement in a real time mode eliminates credit and liquidity risks. Any member of the system will be able to access it

through only one specified gateway in order to ensure rigorous access control measures at the user level. The system will have various levels of security, viz., Access security, 128 bit cryptography, firewall, certification etc. Further, Generic Architecture, both domestic and cross border, aimed at providing inter-connectivity across banks has been accepted for implementation by RBI. Following a reference made this year, in the Monetary and Credit Policy statement of the Governor, banks have been advised to develop domestic generic model in their computerization plans to ensure seamless integration. The abovementioned efforts would enable online banking to become more secure and efficient.

With the process of dematerialisation of shares having gained considerable ground in recent years, banks have assumed the role of depository participants. In addition to customers' deposit accounts, they also maintain demat accounts of their clients. Online trading in equities is being allowed by SEBI. This is another area which banks are keen to get into. HDFC Bank Ltd., has tied up with about 25 equity brokerages for enabling third party transfer of funds and securities through its business-to-business (B2B) portal, 'e-Net'. Demat account holders with the bank can receive securities directly from the brokers' accounts. The bank has extended its web interface to the software vendors of National Stock Exchange through a tie-up with NSE.IT – the infotech arm of the exchange. The bank functions as the payment bank for enabling funds transfer from its customers' account to brokers' accounts. The bank is also setting up a net broking arm, HDFC Securities, for enabling trading in stocks through the web. The focus on capital market operations through the web is based on the bank's strategy on tapping customers interested in trading in equities

through the Internet. Internet banking thus promises to become a popular delivery channel not only for retail banking products but also for online securities trading.

An upcoming payment gateway is being developed by ICICI and Global Tele System, which will enable customers to transfer funds to banks which are part of the project. Transfer of funds can be made through credit/debit/ smart cards and cheques, with the central payment switch enabling the transactions. Banks are showing interest in this new concept, which will facilitate inter-bank funds transfers and other e-commerce transactions, thus highlighting the role of banks in e-commerce as intermediaries between buyers and sellers in the whole payment process. WAP (Wireless Application Protocol) telephony is the merger of mobile telephony with the Internet. It offers two-way connectivity, unlike Mobile Banking where the customer communicates to a mailbox answering machine. Users may surf their accounts, download items and transact a wider range of options through the cellphone screen. WAP may provide the infrastructure for P2P (person to person) or P2M (person to merchant) payments. It would be ideal for transactions that do not need any cash backup, such as online investments. Use of this cutting edge technology could well determine which bank obtains the largest market share in electronic banking. IDBI Bank Ltd. has recently launched its WAP- based mobile phone banking services (offering facilities such as banking enquiry, cheque book request, statements request, details of the bank's products etc). At present, there are only 2.6 phone connections per 100 Indians, against the world average of 15 connections per 100. The bandwidth capacity available in the country is only 3.2 gigabits per second, which is around 60% of current demand. Demand for bandwidth is growing by 350% a

year in India. With the help of the latest technology, Indian networks will be able to handle 40 gigabits of Net traffic per second (as compared to 10 gigabits per second in Malaysia). Companies like Reliance, Bharti Telecom and the Tata Group are investing billions of rupees to build fibre optic lines and telecom infrastructure for data, voice and Internet telephony. The online population has increased from just 500,000 in 1998 to 5 million in 2000. By 2015, the online population is expected to reach 70 million. IT services is a \$1.5 billion industry in India growing at a rate of 55% per annum. Keeping in view all the above developments, Internet banking is likely to grow at a rapid pace and most banks will enter into this area soon. Rapid strides are already being made in banking technology in India and Internet banking is a manifestation of this. Every day sees new tie-ups, innovations and strategies being announced by banks. State Bank of India has recently announced its intention to form an IT subsidiary. A sea change in banking services is on the cards. It would, however, be essential to have in place a proper regulatory, supervisory and legal framework, particularly as regards security of transactions over the Net, for regulators and customers alike to be comfortable with this form of banking.

The last decade has seen many positive developments on the policy front in the Indian banking sector. The policy makers, which comprise the Reserve Bank of India (RBI), Ministry of Finance and related government and financial sector regulatory entities, have made several notable efforts to improve regulation in the sector. The sector now compares favorably with banking sectors in the region on metrics like growth, profitability and non-performing assets (NPAs). A few banks have established an outstanding track record of innovation, growth

and value creation. This is reflected in their market valuation. However, improved regulations, innovation, growth and value creation in the sector remain limited to a small part of it. The cost of banking intermediation in India is higher and bank penetration is far lower than in other markets. India's banking industry must strengthen itself significantly if it has to support the modern and vibrant economy which India aspires to be. While the onus for this change lies mainly with bank managements, an enabling policy and regulatory framework will also be critical to their success. The failure to respond to changing market realities has stunted the development of the financial sector in many developing countries. A weak banking structure has been unable to fuel continued growth, which has harmed the long-term health of their economies. In this "white paper", we emphasize the need to act both decisively and quickly to build an enabling, rather than a limiting, banking sector in India.

Business wise too, things seem to be on an upswing. Indian banks have compared favorably on growth, asset quality and profitability with other regional banks over the last few years. The banking index has grown at a compounded annual rate of over 51 per cent since April 2001 as compared to a 27 per cent growth in the market index for the same period. Policy makers have made some notable changes in policy and regulation to help strengthen the sector. These changes include strengthening prudential norms, enhancing the payments system and integrating regulations between commercial and co-operative banks. However, the cost of intermediation remains high and bank penetration is limited to only a few customer segments and geographies. While bank lending has been a significant driver of GDP growth and employment, periodic instances of the "failure"

of some weak banks have often threatened the stability of the system. Structural weaknesses such as a fragmented industry structure, restrictions on capital availability and deployment, lack of institutional support infrastructure, restrictive labor laws, weak corporate governance and ineffective regulations beyond Scheduled Commercial Banks (SCBs), unless addressed, could seriously weaken the health of the sector. Further, the inability of bank managements (with some notable exceptions) to improve capital allocation, increase the productivity of their service platforms and improve the performance ethic in their organizations could seriously affect future performances.

### **E banking: oppurtunities& challenges**

The bar for what it means to be a successful player in the sector has been raised. Four challenges must be addressed before success can be achieved. First, the market is seeing discontinuous growth driven by new products and services that include opportunities in credit cards, consumer finance and wealth management on the retail side, and in fee-based income and investment banking on the wholesale banking side. These require new skills in sales & marketing, credit and operations. Second, banks will no longer enjoy windfall treasury gains that the decade-long secular decline in interest rates provided. This will expose the weaker banks. Third, with increased interest in India, competition from foreign banks will only intensify. Fourth, given the demographic shifts resulting from changes in age profile and household income, consumers will increasingly demand enhanced institutional capabilities and service levels from banks.

### **ONE OUT OF THESE THREE SCENARIOS WILL PLAY OUT BY 2010**

The interplay between policy and regulatory interventions and management strategies will determine the performance of Indian banking over the next few years. Legislative actions will shape the regulatory stance through six key elements: industry structure and sector consolidation; freedom to deploy capital; regulatory coverage; corporate governance; labour reforms and human capital development; and support for creating industry utilities and service bureaus.

Management success will be determined on three fronts: fundamentally upgrading organizational capability to stay in tune with the changing market; adopting value-creating M&A as an avenue for growth; and continually innovating to develop new business models to access untapped opportunities. Through these scenarios, we paint a picture of the events and outcomes that will be the consequence of the actions of policy makers and bank managements. These actions will have dramatically different outcomes; the costs of inaction or insufficient action will be high. Specifically, at one extreme, the sector could account for over 7.7 per cent of GDP with over Rs. 7,500 billion in market cap, while at the other it could account for just 3.3 per cent of GDP with a market cap of Rs. 2,400 billion. Banking sector intermediation, as measured by total loans as a percentage of GDP, could grow marginally from its current levels of ~30 per cent to ~45 per cent or grow significantly to over 100 per cent of GDP. In all of this, the sector could generate employment to the tune of 1.5 million compared to 0.9 million today. Availability of capital would be a key factor — the banking sector will require as much as Rs. 600 billion (US\$ 14 billion) in capital to fund growth in advances, non-performing loan (NPL) write offs and investments in IT and human

capital up gradation to reach the high-performing scenario. Three scenarios can be defined to characterize these outcomes:

## EVOLUTION

Policy makers adopt a pro-market stance but are cautious in liberalizing the industry. As a result of this, some constraints still exist. Processes to create highly efficient organizations have been initiated but most banks are still not best-in-class operators. Thus, while the sector emerges as an important driver of the economy and wealth in 2010, it has still not come of age in comparison to developed markets. Significant changes are still required in policy and regulation and in capability-building measures, especially by public sector and old private sector banks. In this scenario, M&A activity is driven primarily by new private banks, which take over some old private banks and also merge among themselves. As a result, growth of these banks increases to 35 per cent. Foreign banks also grow faster at 30 per cent due to a relaxation of some regulations. The share of private sector banks increases to 30 per cent of total sector assets, from current levels of 18 per cent, while that of foreign banks increases to over 12 per cent of total assets. The share of banking sector value adds to GDP increases to over 4.7 per cent.

## RECOMMENDATIONS

### NEED TO CREATE A MARKET-DRIVEN BANKING SECTOR WITH ADEQUATE FOCUS ON SOCIAL DEVELOPMENT-

The term “policy makers” used in this document, as mentioned earlier, refers to the Ministry of Finance and the RBI and includes the other relevant government and regulatory entities for the banking sector. We believe a co-ordinate effort between the various entities is

required to enable positive action. This will spur on the performance of the sector. The policy makers need to make co-ordinate efforts on six fronts:

- Help shape a superior industry structure in a phased manner through “managed consolidation” and by enabling capital availability. This would create 3-4 global sized banks controlling 35-45 per cent of the market in India; 6-8 national banks controlling 20-25 per cent of the market; 4-6 foreign banks with 15-20 per cent share in the market, and the rest being specialist players (geographical or product/ segment focused).
- Focus strongly on “social development” by moving away from universal directed norms to an explicit incentive-driven framework by introducing credit guarantees and market subsidies to encourage leading public sector, private and foreign players to leverage technology to innovate and profitably provide banking services to lower income and rural markets.
- Create a unified regulator, distinct from the central bank of the country, in a phased manner to overcome supervisory difficulties and reduce compliance costs.
- Improve corporate governance primarily by increasing board independence and accountability.
- Accelerate the creation of world class supporting infrastructure (e.g., payments, asset reconstruction companies (ARCs), credit bureaus, back-office utilities) to help the banking sector focus on core activities.

- Enable labour reforms, focusing on enriching human capital, to help public sector and old private banks become competitive.

## CONCLUSION

With the time, the concept of internet banking has got attention in the Indian context. Most of the banks have already implemented the e-banking facilities, as these facilities are beneficial to both i.e. banks as well as consumers. The banks are facing many challenges and many opportunities are available with the banks. Many financial innovations like ATMs, credit cards, RTGS, debit cards, mobile banking etc. have completely changed the face of Indian banking. Thus, there is a paradigm shift from the seller's market to buyer's market in the industry and finally it affected at the bankers level to change their approach from "conventional banking to convenience banking" and "mass banking to class banking". The shift has also increased the degree of accessibility of a common man to bank for his variety of needs and requirements. In years to come, e-banking will not only be acceptable mode of banking but will be preferred mode of banking

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